

Appl. No.: 10/539,730

Amendment dated July 24, 2006

Applicants' Response to the Office Action mailed April 24, 2006

In the Claims:

Please amend claims 11, 17, 19 and 25, cancel claims 12,16, 21-24 and 27-29, and add new claims 31-34, as shown in the Listing of Claims below. This Listing of Claims is a complete listing of all claims ever presented and replaces all prior versions, and listings, of the claims in the instant application.

Listing of Claims:

Claims 1-10 (cancelled)

Claim 11. (Currently amended): A process for the production of a mixture of mono-, di- and triesters of hydroxycarboxylic acids, said process comprising reacting hydroxycarboxylic acids or salts thereof, selected from the group consisting of lactic acid, tartaric acid, malic acid, citric acid and self-condensation products thereof, with a mixture of alcohols corresponding to the formulas (I) R^1-OH and (II) $R^2-(C_2H_4)_n-OH$, where R^1 and R^2 independently represent a saturated or unsaturated, branched or unbranched C_{6-22} alkyl group and n is a number of 1 to 20, wherein the compounds of formulas (I) and (II) are used in a ratio by weight of ~~[[10:1]]~~ 4:1 to 1:1 and the hydroxycarboxylic acid is used in such quantities that the molar ratio of the free carboxyl groups of the hydroxycarboxylic acid to the free OH groups of the alcohols is at most 3.5:1.

Claim 12 (Cancelled).

Claim 13 (Previously presented): A process according to claim 11, wherein the alcohols of formulas (I) and (II) are used in a ratio by weight of 1:1.

Claim 14 (Previously presented): A process according to claim 11, wherein the hydroxycarboxylic acid is used in such quantities that the molar ratio of the free carboxyl groups of the hydroxycarboxylic acid to the free OH groups of the alcohols is at most 3:1.

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Claim 15 (Previously presented): A process according to claim 11, wherein the reaction is carried out at temperatures of 150 to 170°C.

Claim 16 (Cancelled)

Claim 17 (Currently amended): A process according to claim ~~[[16]]~~ 11, wherein the hydroxycarboxylic acid is citric acid.

Claim 18 (Previously presented): A process according to claim 11, wherein the resulting mixture of hydroxycarboxylic acid esters contains 25 to 30% of monoesters, 30 to 40% of diesters, 5 to 15% by triesters, and up to 8% of free hydroxycarboxylic acid.

Claim 19 (Currently amended): A mixture of mono-, di- and triesters of ~~hydroxycarboxylic acids~~ citric acid, and optionally free, ~~hydroxycarboxylic~~ citric acid, the mixture comprising esters corresponding to the formula (III):



in which R', R'', R''' represent a hydrogen atom, a C₆₋₂₂ alkyl group, or an ethoxylated C₆₋₂₂ alkyl group, the ethoxylated alkyl groups containing 2 to 20 parts ethylene oxide per alkyl group, with the provisos that at least one of the substituents R', R'' and R''' represents such an ethoxylated alkyl group, and wherein the ratio of mono- to diesters in the mixture is 1:1 to 1:2 the mixture consists of about 25 to 30% of monoesters, 30 to 40% of diesters and 5 to 15% of triesters and, optionally, up to 8% free citric acid.

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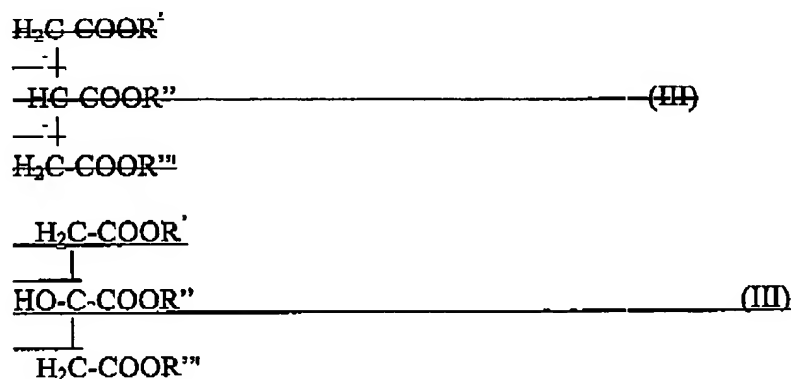
Claim 20 (Previously presented): A mixture according to claim 19, wherein the ethoxylated alkyl groups contain 2 to 10 parts ethylene oxide per alkyl group.

Claim 21-24 (Cancelled)

Claim 25 (Currently amended): A cosmetic composition comprising

(A) one or more cosmetically active ingredients and

(B) a mixture of mono-, di- and triesters of ~~hydroxycarboxylic acids~~ citric acid, and optionally free, ~~hydroxycarboxylic~~ citric acid, the mixtures containing esters corresponding to the formula (III):



in which R', R'', R''' represent a hydrogen atom, a C₆₋₂₂ alkyl group, or an ethoxylated C₆₋₂₂ alkyl group, the ethoxylated alkyl groups containing 2 to 20 parts ethylene oxide per alkyl group, with the provisos that at least one of the substituents R', R'' and R''' represents such an ethoxylated alkyl group, and wherein the ratio of mono- to diesters in the mixture is 1:1 to 1:2 the mixture consisting of about 25 to 30% of monoesters, 30 to 40% of diesters and 5 to 15% of triesters and, optionally, up to 8% free citric acid.

Claim 26 (Previously presented): A cosmetic composition according to claim 25, wherein the ethoxylated alkyl groups of component (B) contain 2 to 10 parts ethylene oxide per alkyl group.

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Claim 27-29 (Cancelled)

Claim 30 (Previously presented): A cosmetic composition according to claim 25, further comprising alkyl ether sulfates, alkyl oligoglycosides or fatty alcohol ethoxylates or mixtures thereof.

Claim 31 (New): A cosmetic composition according to claim 25, wherein the mixture of component (B) has an acid value in the range from 200 to 300, an OH value in the range from 180 to 250, and an ester value in the range from 100 to 160, all according to DIN 51963.

Claim 32 (New): A cosmetic composition according to claim 25, wherein the mixture of component (B) has a saponification value in the range from 380 to 500, according to DIN 51963.

Claim 33 (New): A mixture of mono-, di- and triesters of citric acid, and, optionally, free citric acid, according to claim 19, wherein the mixture has an acid value in the range from 200 to 300, an OH value in the range from 180 to 250, and an ester value in the range from 100 to 160, all according to DIN 51963.

Claim 34 (New): A mixture of mono-, di- and triesters of citric acid, and, optionally, free citric acid according to claim 19, wherein the mixture has a saponification value in the range from 380 to 500, according to DIN 51963.